

FIELD TRIPS OF THE CLUB

FIELD TRIP OF SUNDAY, NOVEMBER 5, SUFFERN TO RAMAPO

In the morning the flora along the Hillburn-Torne-Sebago trail was examined. Interesting from a phenological standpoint was the precocious appearance of very young sporophytes of *Ceratodon purpureus*, and, somewhat farther on, the delayed flowering of *Corydalis sempervirens*, one inflorescence of which was still blooming vigorously. *Buxbaumia aphylla* was found, rather commonly.

The afternoon was devoted to a study of the liverworts growing in and near Torne Brook. This locality, with its springs and shaded stream, is distinctly favorable for the growth of this group of plants. The species seen included the following: *Conocephalum conicum*, *Blasia pusilla* (with stellate gemmae), *Frullania eboracensis*, *Frullania riparia*, *Porella pinnata*, *Calyptogeia Trichomanis*, *Lepidozia reptans*, *Bazzania trilobata*, *Scapania nemorosa*, *Diplophyllia apiculata*, *Plagiochila asplenoides*, *Cephalozia bicuspidata*, *Cephalozia curvifolia*, *Lophocolea heterophylla*, *Trichocolea tomentella*, *Ptilidium pulcherrimum*, and *Anthoceros laevis* (in fruit). EDWIN B. MATZKE

FIELD TRIP OF NOVEMBER 11

On the afternoon of November the eleventh, the Torrey Botanical Club was given an opportunity to visit behind the scenes at the American Museum of Natural History. A party of eighty was conducted by Mr. S. Harmsted Chubb through the laboratories of the Departments of Preparation, of Osteology, and of Marine Life, and to the Akeley African Hall to see the work in process of construction and to hear about the methods of preparation of the specimens and groups to be placed on exhibition.

Mr. Chubb was assisted in the several departments by Dr. James L. Clark, Vice-Director, by Mr. John Saunders of the Department of Education, and by others in charge of special branches of the work.

In the Department of Lower Invertebrates, of which Dr. Roy W. Miner is Curator, the party saw the beautiful Coral Reef Group, now approaching completion. Mr. Chris Olsen,

chief of construction of this exhibit, described the difficulties encountered in the handling and supporting of so much massive coral, and of the methods used in representing truthfully a scene under seas.

Dr. Clark, in charge of Preparation, gave us a general account of the intricate variety of work required in order to reproduce realistic groups of animals in their natural habitats. This comprises the collection of the animals required for the group, and of botanical specimens and other accessories, the making of field color sketches and of plaster casts of leaves and other parts of plants, and then, in the laboratory, designing and constructing small models of the scene chosen, which serve to visualize the group to be completed.

In the laboratory where the accessories for the groups are being prepared, Mr. Albert E. Butler, who has charge of this delicate and important part of the preparation, told about the making and coloring of wax flowers, leaves, and other parts of plants, and of rock work, and of the assembling of other material required.

The mounting of the mammals themselves was explained by Mr. Saunders, who also took us to the unfinished Akeley African Hall to show us how the beautiful and comprehensive plan of Carl Akeley is becoming a reality. Several of the groups are already installed and now nearing completion, while the work on the building and other groups is steadily progressing.

Lastly we were conducted by Mr. Chubb to his Osteological Laboratory in the Department of Comparative Anatomy and to the Osteological Exhibition Hall where he is expressing action and animal mechanics in mounted skeletons. In explaining his manner of procedure, he told of the methods of obtaining necessary photographic studies of animals in action, of the careful study during dissection of the specimen to be mounted, the cleaning and preparation of the bones, and then the reassembling of these bones in life-like pose to express a specific action.

S. H. AND E. D. CHUBB

FIELD TRIP OF NOVEMBER 26

Brown-fruited *Umbilicaria pustulata*

Study of lichens on the top of Bear Mountain, on the field trip of Sunday, Nov. 26, disclosed one thing that seemed unusual,

a colony of the Blistered Rock Tripe, *Umbilicaria pustulata* on several closely adjoining ledges, which bore brown apothecia, instead of the usual black ones. Every apothecium on the thalli in this area, several rods wide, was brown, while on other colonies, on the mountain top, the usual black fruit were found. The thalli with brown apothecia did not appear to be diseased or abnormal, and the color did not seem attributable to any outside interference, such as eating by slugs or insects. In some cases the brown color was almost reddish brown. I find no mention of such a color in available lichen guides.

Interesting crustose lichens found on this trip were *Rinodina oreina*, which I have regarded as a plant of boreal islands in this vicinity, usually finding it around 1,000 feet or above, although there is some on glacial boulders on Montauk Point; and *Lecanora tartarea*, the dye and litmus producing lichen, occasional in high places in the Highlands. Colonies of a pretty sorediose *Physcia*, which Mrs. G. P. Anderson thinks is *P. clementina*, not before reported in North America, were also found.

Cladoniae were ample in quantity and fairly varied in species, including *C. cristatella*, *ff. vestita* and *Beauvoisii*; *C. squamosa*, form undetermined; *C. Floerkeana*, *C. coniocraea*, *ff. ceratodes* and *truncata*; *C. borbonica*, *f. cylindrica*, a somewhat unusual species, resembling *C. coniocraea* at first sight and apt to be mistaken for it but distinguished by the granulate and isidiate soredia on the bases of the podetia, and by tiny brown apothecia; *C. uncialis*, near *f. dicraea*; *C. rangiferina*, *C. furcata*, var. *racemosa*, *f. corymbosa*; and var. *pinnata*, *f. foliolosa*; *C. bacillaris*, *C. papillaria*, *f. papillosa*, *C. caespiticia*, and *C. chlorophaea*, *ff. simplex* and *carpophora*.

While working on the Appalachian Trail, on Kittatiny Mountain, Warren County, N. J., a week later, and looking for more brown-fruited *Umbilicaria pustulata*, I found the plant growing on wood, the first time I ever saw it elsewhere than on rocks. Several normal looking and fruiting thalli were growing on a dead stick, two feet long, which lay on boulders thickly covered with this lichen, on the west shore of Sunfish Pond. These boulders are densely coated with a variety of lichens, including *Rinodina oreina*, *Lecanora tartarea*, *Stereocaulon paschale*, *Parmelia conspersa* and *saxatilis*, and *Lecanora cinerea*.

Dr. A. W. Evans, of Yale University says he has never seen *Umbilicaria* growing on wood, but notes that R. Heber Howe

mentioned it as on wood, in his paper on the "Lichens of Mount Katahdin, Main, Bryologist 16: 33, 1913, and figured it on a plate therein.

R. H. TORREY

FIELD TRIP OF DECEMBER 10

A party of six members and guests visited the Wawayanda Cedar Swamp in New Jersey on December 10 on a cold clear day. The swamp was entirely frozen and two inches of ice had formed on the pools.

Lichens were in fine condition and grew luxuriantly in the swamp area. *Graphis recta*, with black lines of fruit parallel to the lenticels, was found in abundance on a fallen yellow birch log. *Graphis scripta*, with the fruit more irregularly placed, was discovered on the bark of an oak. Throughout the swamp, in especial abundance on tree trunks, the silvery gray thallus of *Parmelia physodes* with upturned, frosty sorediate-tipped lobes, was in sight. Other Parmelias were also common in the region. *P. caperata*, a yellow green mat on tree trunks; *P. conspersa*, a straw colored mat with a dark green center and chestnut brown apothecia, on rocks; *P. saxatilis* with narrow gray thallus lobes marked by net lines on the upper surface, on tree trunks; *P. rudecta*, with broad gray lobes and with coralline (isidoid) surface in the center, on trees; and *P. subaurifera* an olive green mat closely pressed to the tree trunks and bursting here and there with masses of yellow soredia; were all observed. In the swamp the light gray, foliose *Cetraria atlantica* was found on the branches of conifers, and the crustose *Pertusaria velata*, with lighter margin and immersed apothecia and *Buellia myriocarpa*, with tiny black apothecia and hardly any thallus, on the trunks of other trees. Cladonias too were not lacking. The ubiquitous red-topped *Cladonia cristatella* and gray-cupped *C. chlorophaea* were of course everywhere. *Cladonia coniocraea* was found with brown apothecia tipping its slender awl-shaped podetia. The fruit is rather uncommon in this region. *Cladonia bacillaris*, a slightly stouter species with more sorediate podetia, was also found. *Cladonia incrassata* with sorediate podetia and red fruit mostly on one side of the podetia, and *C. delicata*, a tiny brown-fruited form which has finely cut fern-like primary squamules bearing granular soredia, were also discovered. A few greenish-hairy thalli of *Usnea barbata* and brown stunted hairs of *Alec-*

toria chalybeiformis were gathered on trees. On dry ground outside the swamp *Cladonia furcata* was found, and a little *Cladonia rangiferina*. On the rocks of the deciduous forest outside the swamp, *Lecanora cinerea*, *albocaerulescens* and *Crocynia lanuginosa* were common. *Lecanora tartarea* and *Cetraria glauca* were also found on rocks.

Mosses and liverworts carpeted the swamp floor together with sphagnum. *Hypnum imponens* was fruiting commonly. The gemma cups of *Georgia pellucida* were collected. On dryer ground, *Bryum caespiticum* was in fruit. One of the fallen logs in the swamp was covered with a hairy liverwort (*Ptilidium pulcherrimum*) fruiting abundantly. Others in the swamp were: *Bazzania trilobata*, *Pallavicinia lyellii*, and *Calypogeia trichomanis* on rotting logs. The tiny brown *Frullania eboracensis* was common on the trunks of deciduous trees.

The cedar swamp is one of the finest wild spots left near New York City. Dense thickets of *Rhododendron maximum* form the undergrowth, the red cedar and hemlock are the dominant tree growths. Along the stream in the swamp are typical wet ground species; button bush, kinnikinnik, witch hazel, red maple sweet pepper bush, and high bush blueberry.

On return to the city, the party was entertained for supper at the home of Miss Eleanor Friend and afterwards the specimens gathered were reviewed.

JOHN W. THOMSON, JR.